

C. Executive Summary

a) Opportunity the proposed system seeks to address.

The Edgenics Municipal and Enterprise Broadband Project will deploy broadband infrastructure that helps to overcome the challenges facing many rural towns and communities revive their economic engines. One way of accomplishing this is to provide these communities with broadband infrastructure resources that will enable the pursuit of new business opportunities and careers. Broadband network resources will enable rural communities and their citizens to do business locally, nationally and globally. The Edgenics Municipal and Enterprise Broadband initiative will help to alleviate economic problems and thereby increase the quality of life and provide enhanced opportunities for businesses, citizens, local government, schools and other local institutions in rural areas. Edgenics and/or its partners have conducted studies of the needs of rural communities. These studies have provided a comprehensive view of the needs of rural communities. These studies were conducted in order to identify needs that are common across a broad cross-section of rural communities. The objective was to identify needs that had a high priority in many communities. By developing programs and solutions to address these high priority needs, we can have a significant positive impact in each individual community; offer solutions that can be provided more efficiently; implement strategies to address high priority needs in a way such that their effectiveness can be assessed in a more comprehensive manner. Listed below are key needs and opportunities that the proposed broadband network system will address in rural towns and communities:

- Rural communities have a dramatically ageing population and a large number of poor workers, which brings with it increased demands for health care and social services that are often more expensive to provide unless modern resources such as telemedicine are available.
- Generally, rural residents must travel long distances to reach hospitals or health specialists. In addition, rural emergency services are lacking in many communities. Critical Community Institutions in rural towns often lack the communications infrastructure or value added applications that support coordination of public safety and health care service delivery.
- Rural towns have been undermined by the decline of their local economies resulting in pressure on Community Anchors and Critical Community Institutions. Without needed broadband infrastructure, many rural residents and businesses are finding it difficult to increase their standard of living.
- Community development initiatives must help rural schools meet the changing educational needs of their communities. Schools can also help foster the formation of formal interagency networks which in turn support community development as a whole. Schools can provide leadership and decision making simulations to improve the community's ability to respond to local issues and economic change. Rural schools can build around the unique educational needs of different age groups, including adults and the elderly, to address the educational needs of the entire community.
- Rural towns need ways to attract private investment. Three areas are targets of new policy initiatives: expanding value-added agricultural production, finding alternative methods to increase rural income from the natural resource asset base, and providing

leadership in education of “green” entrepreneurs who will likely be the future of business growth in rural areas.

- Many programs exist to promote value-added agricultural development, it is a priority to creatively integrate into these programs focused on bio-based and renewable energy production and other innovative development opportunities are the future of rural communities.

b) A general description of the proposed funded service areas (location, number of communities, etc.)

The proposed funded primary service areas are a total of four-hundred-fifty (450) rural towns located in [REDACTED]: Alabama, Arkansas, Florida, Georgia, Illinois, [REDACTED] Louisiana, Maryland, [REDACTED] Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, [REDACTED] Oklahoma, [REDACTED] South Carolina, Tennessee, Texas [REDACTED]. The proposed group of towns is a natural grouping because each is affiliated with [REDACTED] that we are working with to support the towns.

c) Number of households and businesses passed.

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| Number of Households Passed | 1,284,744 |
| Number of Businesses Passed | 222,594 |

d) Number of community anchor institutions, public safety entities, and critical community organizations passed and/or involved with project (e.g., health care, education, libraries, etc.).

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| Number of Community Anchor Institutions Passed/Involved | 1,508 |
| Number of Public Safety Entities Passed/Involved | 1,885 |
| Number of Critical Community Organizations Passed/Involved | 1,325 |

e) Proposed services and applications for the proposed funded service areas and users.

The Edgenics Municipal and Enterprise Broadband Project will address the above cited needs and opportunities by providing broadband infrastructure to:

- support the delivery of innovative telemedicine services to meet the health care needs of aging and low income populations in rural areas;
- address communications needs of Critical Community Institutions and provide tools for coordination;
- deliver free broadband connectivity to support the operation of municipalities and other public Critical Community Institutions;
- deliver free broadband connectivity for public schools;
- create new jobs by helping local entrepreneurs and small businesses to develop and launch innovative products and services to stimulate local economic activity; and
- support innovative value added projects such as carbon sequestration, environmental monitoring and traffic and emissions monitoring.

f) Approach to addressing the non-discrimination and interconnection obligations

The Edgenics Municipal and Enterprise Broadband Project will diligently abide by the FCC core internet principals regarding network neutrality and will insure that our deliver of broadband services shall serve all lawful Internet applications and content on an equal and fair basis. We will offer interconnection, where technically feasible without exceeding current or reasonably anticipated capacity limitations, on reasonable rates and conditions to be terms negotiated with interested third parties. Edgenics will facilitate access to the public Internet by its local subscribers by facilitating appropriate network interconnections at Tier 1 Internet peering points. Edgenics will use network management policies that promote these principals and will display information concerning these policies in a prominent location on our web site(s).

g) Type of broadband system that will be deployed (network type and technology standard).

The Edgenics Municipal and Enterprise Broadband network infrastructure will: (i) utilize fiber for core network capacity; and (b) fiber will be used for backhaul capacity to the extent possible, otherwise point to point or point to multi-point wireless will be used. The backhaul network will be interconnected with local access networks built with a combination of fiber, WiMAX (802.16) wireless base-stations, and WiFi (802.11) access points.

h) Qualifications of the applicant that demonstrate the ability to implement and operate a broadband infrastructure, and/or be a sustainable broadband services provider.

Edgenics has been working to implement broadband infrastructure to serve rural areas since June, 2000. We obtained initial approval from USDA RUS in 2002 and received funding in 2006 and 2007. The Edgenics management team has extensive experience in the communications industry with expertise in fiber optic networking, routing / switching, server, wireless and other technologies that will be components of the overall broadband infrastructure. The five (5) key members of the Edgenics executive and technical team have more than 120 years of cumulative experience with communications, wireless and ISP companies.

i) Overall infrastructure cost of the broadband system.

The Edgenics Municipal and Enterprise Broadband Project will deploy broadband infrastructure to serve [REDACTED] rural towns and communities. Based on quotes from various equipment and backhaul network providers, the overall infrastructure cost of the Edgenics broadband infrastructure is [REDACTED].

j) Overall expected subscriber projections for the project.

The Edgenics Municipal and Enterprise Broadband Project is projected to provide broadband service to more than [REDACTED] subscribers within three years.

k) Number of jobs estimated to be created or saved as result of this project.

The Edgenics Municipal and Enterprise Broadband Project will directly and indirectly create jobs for more than 2250 people during the 3 year deployment phase and more than 850 sustainable permanent jobs in conjunction with its own operations and those of its joint venture partners.